

REMARKS

In response to the Office Action mailed October 31, 2007, Applicant respectfully requests reconsideration. To further the prosecution of this application, amendments have been made in the claims, and each of the rejections set forth in the Office Action has been carefully considered and is addressed below. The claims as presented are believed to be in condition for allowance.

Claims 1-20 were previously pending in this application. Claims 1 and 11 have been amended. Claims 5 and 15 are canceled. No claims have been added. As a result, claims 1-4, 6-14 and 16-20 remain pending for examination, with claims 1 and 11 being independent. No new matter has been added.

Rejection Of Claims 1-4 and 6-10

Independent claim 1 is rejected under 35 U.S.C. §103(a) as purportedly being obvious over U.S. Patent No. 5,614,687 to Yamada, et al. ("Yamada") in view of U.S. Patent No. 6,518,492 to Herberger, et al. ("Herberger"). Independent claim 1 is amended herein, and patentably distinguishes over the asserted combination.

As amended, claim 1 recites a tempo analyzing apparatus. The apparatus comprises a peak detecting means for detecting positions of a plurality of ones, higher than a predetermined threshold, of peaks of change in level of an input sound signal; a time interval detecting means for detecting a time interval between peak positions detected by the peak detecting means in a predetermined unit-time interval; an interval frequency detecting means for identifying a frequently occurring one of the time intervals detected by the time interval detecting means; an identifying means for identifying a tempo of sound to be reproduced with the sound signal on a basis of the frequently occurring one of the time intervals detected by the interval frequency detecting means; a volume calculating means for calculating a volume of the input sound signal; and a threshold setting means for setting a threshold used to detect a peak position with reference to the volume calculated by the volume calculating means.

Claim 1 is amended to include the limitations previously recited by former claim 5, which is canceled. These limitations require that the tempo analyzing apparatus of claim 1 comprise a volume calculating means for calculating a volume of an input sound signal, and a threshold setting means for setting a threshold used to detect a peak position with reference to the volume calculated by the volume calculating means. The Office Action contends that Yamada satisfies these limitations. This contention is unsupported by the reference.

The passage of Yamada relied upon by the Office Action discloses part of a process through which Yamada obtains a beats per minute (BPM) value for an input sound signal using a detected level of the signal (col. 3, lines 7-64). In particular, Yamada discloses determining the BPM by detecting an interval that begins when the sound signal first reaches a high level and ends when the sound signal again reaches the high level (col. 3, lines 7-8 and 57-63). In the passage cited by the Office Action, Yamada discloses that when a sound signal is received, a maximum value of the signal is detected, and a slice level equal to 75% of the maximum value is calculated (col. 3, lines 23-29). Thereafter, the output of a band pass filter (BPF) is compared to the slice level, and a reset is generated when the output of the BPF exceeds the slice level (col. 3, lines 31-46). When a reset occurs, an interval T1 has begun (col. 3, lines 36-41). During the interval T1, the system determines when the output of the BPF first becomes a high level, and then stops the measurement when the BPF output again reaches the high level (col. 3, lines 58-62). The interval between the first and second time that the signal reaches the high level is used to calculate the BPM (col. 3, lines 62-64).

This passage of Yamada has nothing to do with calculating a volume of an input sound signal, or setting a threshold with reference to the calculated volume. The reference by the passage to a "level" of the input sound signal, and "slice level" indicating a reduced value of this level, relates to the waveform of the input sound signal (see, e.g., col. 5, lines 45 *et seq.*), and not to a volume level of the input sound signal. Yamada simply says nothing at all, in the cited passage or elsewhere, about calculating a volume of an input sound signal or setting a threshold used to detect a peak position with reference to the calculated volume. Indeed, an automated search of Yamada reveals that the term "volume" is not found at all in the reference.

Herberger fails to remedy this deficiency of Yamada, as Herberger also says nothing at all relating to a volume calculating means for calculating a volume of an input sound signal and a threshold setting means for setting a threshold used to detect a peak position with reference to the volume calculated by the volume calculating means.

As a result, claim 1 patentably distinguishes over any combination of the cited references, and the rejection of claim 1 under 35 U.S.C. §103(a) as purportedly being obvious over Yamada in view of Herberger should be withdrawn. Claims 2-10 depend from claim 1 and are allowable for at least the same reasons.

Rejection Of Claims 11-14 and 16-20

Independent claim 11 is rejected under 35 U.S.C. §103(a) as purportedly being obvious over Yamada in view of Herberger and further in view of U.S. Patent No. 6,140,565 to Yamauchi, et al., (“Yamauchi”). Claim 11 is amended herein, and patentably distinguishes over the asserted combination.

Amended claim 11 recites a tempo analyzing method comprising, *inter alia*, calculating a sound volume of an input sound signal, and detecting a threshold for use to detect a peak position with reference to the calculated sound volume. It should be appreciated from the discussion above relating to claim 1 that Yamada, which the Office Action relies upon to satisfy these limitations, fails to disclose or suggest calculating a sound volume of an input sound signal, or detecting a threshold with reference to the calculated sound volume. Neither Herberger nor Yamauchi remedy this deficiency of Yamada. As a result, claim 11 patentably distinguishes over the asserted combination, and the rejection of claim 11 under 35 U.S.C. §103(a) as purportedly being obvious over Yamada in view of Herberger and Yamauchi should be withdrawn.

Claims 12-14 and 16-20 depend from claim 11 and are allowable for at least the same reasons.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: January 31, 2008

Respectfully submitted,

By Randy J. Pritzker
Randy J. Pritzker

Registration No.: 35,986
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000